

Amendments to the Claims:

Claims 1-27. (canceled)

Claim 28. (previously presented) A composition comprising:

an orally acceptable, tooth whitening peroxyacetic acid generating mixture including a source of hydrogen peroxide and an acetic acid ester of glycerin, wherein the source of hydrogen peroxide and the acetic acid ester of glycerin are dispersed within an orally acceptable anhydrous carrier.

Claim 29. (previously presented) The composition of claim 28 wherein the acetic acid ester of glycerin is selected from the group consisting of glyceryl triacetate, glyceryl diacetate and glyceryl acetate.

Claim 30. (previously presented) A composition according to claim 28, wherein the source of hydrogen peroxide is selected from the group consisting of carbamide peroxide, sodium percarbonate, sodium perborate, calcium peroxide, magnesium peroxide, sodium peroxide, and anhydrous poly(vinyl pyrrolidone)/hydrogen peroxide complexes.

Claim 31. (previously presented) A composition according to claim 28 capable of providing an oral pH of more than 5.2 to generate peroxyacetic acid.

Claim 32. (previously presented) A composition according to claim 31, wherein the oral pH is 7.8.

Claim 33. (previously presented) The composition of claim 28 wherein the orally acceptable anhydrous carrier is selected from the group consisting of glycerin, propylene glycol, polyethylene glycols, chewing gum and gum base products, floss carriers and floss wax products, mineral oils, vegetable oils, waxes and esters.

Claim 34. (previously presented) The composition of claim 28 wherein the orally acceptable anhydrous carrier comprises a thickening agent.

Claim 35. (previously presented) The composition of claim 34 wherein the thickening agent is selected from the group consisting of neutralized carboxypolymethylene, polyacrylic acid polymers and copolymers, hydroxypropylcellulose and other cellulose ethers, salts of poly(methyl vinyl ether-co-maleic anhydride), poly(vinylpyrrolidone), poly(vinylpyrrolidone-co-vinyl acetate), silicon dioxide, fumed silica, and stearic acid esters.

Claim 36. (previously presented) The composition of claim 28 wherein the orally acceptable anhydrous carrier comprises a buffer.

Claim 37. (previously presented) The composition of claim 36 wherein the buffer is selected from the group consisting of sodium hydroxide, potassium hydroxide, ammonium hydroxide, sodium phosphate di- and tri-basic, potassium phosphate di- and tri-basic, sodium tripolyphosphate, tris(hydroxymethyl)aminomethane, triethanolamine, polyethylenimine, polyacrylic acid, poly(methyl vinyl ether-co-maleic anhydride), citric acid, and phosphoric acid.

Claim 38. (previously presented) The composition of claim 28 wherein the orally acceptable anhydrous carrier comprises a surfactant.

Claim 39. (previously presented) The composition of claim 38 wherein the surfactant is selected from the group consisting of zwitterionic and fluorinated surfactants.

Claim 40. (previously presented) The composition of claim 28 wherein the orally acceptable anhydrous carrier comprises a chelating agent.

Claim 41. (previously presented) The composition of claim 40 wherein the chelating agent is selected from the group consisting of phosphonic acids, EDTA, and polyphosphates.

Claim 42. (previously presented) The composition of claim 28 wherein the orally acceptable anhydrous carrier comprises flavorants or sweeteners.

Claim 43-44. (canceled)

Claim 45. (previously presented) A method for whitening teeth comprising:

applying one of either a glyceryl triacetate or a source of hydrogen peroxide onto a tooth surface; and

applying the other of the remaining glyceryl triacetate or source of hydrogen peroxide onto the same tooth surface, so as to generate peroxyacetic acid upon contact with an aqueous solution on the surface of the tooth.

Claim 46-47. (canceled)

Claim 48. (currently amended) A method for cosmetically treating teeth comprising the steps of:

applying a C1-C5 molecule having between 1 to 5 labile C1-C5 acetyl containing groups
~~source of labile acetyl groups~~ onto the surface of a tooth;

allowing the C1-C5 molecule having between 1 to 5 labile C1-C5 acetyl containing groups
~~source of labile acetyl groups~~ to penetrate into the tooth;

applying a source of peroxide onto the surface of the tooth;

allowing the C1-C5 molecule having between 1 to 5 labile C1-C5 acetyl containing groups
~~source of labile acetyl groups~~ to react with the source of hydrogen peroxide to generate a peroxyacid within the tooth; and

allowing the peroxyacid to effect whitening of the tooth.

Claim 49-50. (canceled)

Claim 51. (currently amended) The method of claim 48[[7]] wherein the C1-C5 molecule having between 1 to 5 labile C1-C5 acetyl containing groups~~source of labile acetyl groups~~ has a molecular weight of between about 100 to about 300.

Claim 52. (currently amended) The method of claim 48[[7]] wherein the C1-C5 molecule having between 1 to 5 labile C1-C5 acetyl containing groups~~source of labile acetyl groups~~ has a molecular weight approximate that of glyceryl triacetate.

Claims 53-58. (canceled)

Claim 59. (previously presented) A composition for whitening teeth in an oral cavity comprising:

a source of hydrogen peroxide in an amount that results in about 0.1% to about 15.0% of hydrogen peroxide when applied to the oral cavity;

an acetic acid ester of glycerin in an amount of about 0.1% to about 6.0%; and

an orally acceptable anhydrous carrier in an amount of about 79.0% to about 99.8%;

wherein the percentages are weight to weight of the composition.

Claim 60. (previously presented) The composition of claim 59 wherein the acetic acid ester of glycerin is selected from the group consisting of glyceryl triacetate, glyceryl diacetate and glyceryl acetate.

Claim 61. (previously presented) A composition according to claim 59, wherein the source of hydrogen peroxide is selected from the group consisting of carbamide peroxide, sodium percarbonate, sodium perborate, calcium peroxide, magnesium peroxide, sodium peroxide, and anhydrous poly(vinyl pyrrolidone)/hydrogen peroxide complexes.

Claim 62. (previously presented) The composition of claim 59, wherein the orally acceptable anhydrous carrier is selected from the group consisting of glycerin, propylene glycol,

polyethylene glycols, chewing gum and gum base products, floss carriers and floss wax products, mineral oils, vegetable oils, waxes and esters.

Claim 63. (previously presented) The composition of claim 59, wherein the orally acceptable anhydrous carrier comprises a thickening agent in an amount of about 0.5% to about 20.0%.

Claim 64. (previously presented) The composition of claim 63, wherein the thickening agent is selected from the group consisting of neutralized carboxypolymethylene, polyacrylic acid polymers and copolymers, hydroxypropylcellulose and other cellulose ethers, salts of poly(methyl vinyl ether-co-maleic anhydride), poly(vinylpyrrolidone), poly(vinylpyrrolidone-co-vinyl acetate), silicon dioxide, fumed silica, and stearic acid esters.

Claim 65. (previously presented) The composition of claim 59, wherein the orally acceptable anhydrous carrier comprises a buffer in an amount of about 0.5% to about 3.0%.

Claim 66. (previously presented) The composition of claim 65, wherein the buffer is selected from the group consisting of sodium hydroxide, potassium hydroxide, ammonium hydroxide, sodium phosphate di- and tri-basic, potassium phosphate di- and tri-basic, sodium tripolyphosphate, tris(hydroxymethyl)aminomethane, triethanolamine, polyethylenimine, polyacrylic acid, poly(methyl vinyl ether-co-maleic anhydride), citric acid, and phosphoric acid.

Claim 67. (previously presented) The composition of claim 59, wherein the orally acceptable anhydrous carrier comprises a surfactant in an amount of about 0.1% to about 2.0%.

Claim 68. (previously presented) The composition of claim 67, wherein the surfactant is selected from the group consisting of zwitterionic and fluorinated surfactants.

Claim 69. (previously presented) The composition of claim 59, wherein the orally acceptable anhydrous carrier comprises a chelating agent in an amount of about 0.01% to about 5.0%.

Claim 70. (previously presented) The composition of claim 69, wherein the chelating agent is selected from the group consisting of phosphonic acids, EDTA, and polyphosphates.

Claim 71. (previously presented) The composition of claim 58, wherein the orally acceptable anhydrous carrier comprises flavorants or sweeteners in an amount of about 0.05% to about 1.5%.

Claim 72. (previously presented) The composition of claim 60, wherein the acetic acid ester of glycerin comprises glyceryl triacetate in an amount of about 6.0%.

Claim 73-79. (canceled)